



Form PTO-1449 (Modified)

U.S. Department of Commerce  
Patent and Trademark OfficeAttorney Docket No.  
30203/37899Serial No.  
09/996,143**INFORMATION DISCLOSURE  
STATEMENT**Applicant  
R. FrickFiling Date  
11/28/01Group  
2877**U.S. PATENT DOCUMENTS**

*Examiner Initials	Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
La	4,452,533	06/05/84	Miles et al.			
La	4,955,028	09/04/90	Alferness et al.			
La	5,097,476	03/17/92	Thiessen			
La	5,182,779	01/26/93	D'Agostino, et al.			
La	5,187,546	02/16/93	Johnston			
La	5,319,435	06/07/94	Melle et al.			
La	5,361,313	11/01/94	O'Keefe			
La	5,400,140	03/21/95	Johnston			
La	5,509,022	04/16/96	Lowery et al.			
La	5,513,913	05/07/96	Ball et al.			
La	5,534,992	07/09/96	Takeshima et al.			
La	5,564,832	10/15/96	Ball et al.			
La	5,594,543	01/14/97	de Groot et al.			
La	5,642,375	06/24/97	King et al.			
La	5,663,792	09/02/97	Killpatrick et al.			
La	5,808,743	09/15/98	Stephens et al.			
La	5,825,799	10/20/98	Ho et al.			
La	5,974,060	10/26/99	Byren et al.			
La	6,034,770	03/07/00	Kim et al.			

**FOREIGN PATENT DOCUMENTS**

*Examiner Initials	Document Number	Publication Date	Country	Class	Subclass	Translation	
						Yes	No
La	07063855	03/10/95	Japan			Abstract only	

EXAMINER

*Rich A. ...*

DATE CONSIDERED

2/11/04.

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449 (Modified)

U.S. Department of Commerce  
Patent and Trademark OfficeAttorney Docket No.  
30203/37899Serial No.  
09/996,143**INFORMATION DISCLOSURE  
STATEMENT**Applicant  
R. FrickFiling Date  
11/28/01Group  
2877**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)**

1a	Arentoft, et al. Picco, D1 Report, pages 1-26
1a	Berkoff, et al. "Experimental Demonstration of a Fiber Bragg Grating Accelerometer," <i>Photonics Tech. Letters</i> 8(12):1677-1679 (1996)
1a	Big Payoffs in a Flash, <i>Scientific American</i> September 2000 pages 73-79
1a	Cai, et al. "Fiber-Optic Add-Drop Device Based on a Silica Microsphere-Whispering Gallery Mode System," <i>Photonics Technology Letters</i> 11(6):686-687 (1999)
2a	Cai, et al. "Highly efficient optical power transfer to whispering-gallery modes by use of a symmetrical dual-coupling configuration," <i>Optics Letters</i> 25(4):260-262 (2000)
1a	Dandliker, et al. "Electronically scanned white-light interferometry: a novel noise-resistant signal processing," <i>Optics Letters</i> 17(9):679-681 (1992)
1a	De Brabander, et al. "Integrated Optical Ring Resonator With Micromechanical Diaphragm for Pressure Sensing," <i>Photonics Technology Letters</i> 6(5):671-673 (1994)
1a	"Fiber Optic Sensors by Blue Road Research," <i>MEMS - Micromachines in Silicon - MEMS and MST from Standard MEMS</i>
1a	Fuhr, "Measuring with Light; Part 1" <i>Sensors</i> (2000)
1a	Fuhr, "Measuring with Light; Part 2" <i>Sensors</i> (2000)
1a	Fuhr, "Measuring with Light; Part 3" <i>Sensors</i> (2000)
1a	"High-quality ring resonators," Zurich Research Laboratory
2a	Jones, et al. "Near-diffraction-limited high power (~1W) single longitudinal mode CW diode laser tunable from 960 to 980nm," <i>Electronics Letters</i> 31(19):1668-1669 (1995)
1a	Jones, et al. "Stabilization of the frequency, phase, and repetition rate of an ultra-short pulse train to a Fabry-Perot reference cavity," <i>Optics Communications</i> 175:409-418 (2000)
1a	Katagiri, et al. "Dynamic microforce measurement by distortion detection with a coupled-cavity laser displacement sensor stabilized in a mechanical negative-feedback loop," <i>Applied Optics</i> 37(31):7193-7199 (1998)
1a	Katagiri, et al. "Passively Mode-Locked Micromechanically-Tunable Semiconductor Lasers," <i>IEICE Trans. Electron.</i> E81(2):151-159 (1998)
1a	Katagiri, "Small Displacement Sensor Measures Tiny Forces," <i>Sensor Technology</i> 16(6):7
1a	Kersey, et al. "Fiber Grating Sensors," <i>Journal of Lightwave Technology</i> 15(8):1442-1463 (1997)

EXAMINER

DATE CONSIDERED

2/11/04

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449 (Modified)

U.S. Department of Commerce  
Patent and Trademark Office

Attorney Docket No.

30203/37899

Serial No.

09/996,143

**INFORMATION DISCLOSURE  
STATEMENT**

Applicant

R. Frick

Filing Date

11/28/01

Group

2877

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)**

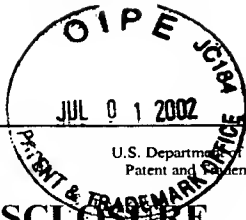
la	Koo, et al. "Bragg Grating-Based Laser Sensors Systems with Interferometric Interrogation and Wavelength Division Multiplexing," <i>Journal of Lightwave Technology</i> 13(7):1243-1249 (1995)
la	Kurita, et al. "Ultrafast All-Optical Signal Processing with Mode-Locked Semiconductor Lasers," <i>IEICE Trans Electron</i> E81-C(2):129-139 (1998)
la	"Light-sensing technologies hurdle barriers," <i>NASA News</i> page 28 (1997)
la	Meggitt, et al. "An all fibre white light interferometric strain measurement system," <i>Sensors and Actuators</i> 79:1-7 (2000)
la	Meggitt, et al. "Fiber optic white-light interferometric sensors," <i>Optical Fiber Sensor Tech.</i> pages 269-312 (1995)
la	Notcutt, et al. "Allan Deviation Measurements of a Cryogenic All-Sapphire Fabry-Perot Reference Cavity," <i>1996 Conference on Precision Electromagnetic Measurements Digest</i> , pages 193-194 (1996)
la	Rao, et al. "Recent progress in fibre optic low-coherence interferometry," <i>Meas. Sci. Technol.</i> 7:981-999 (1996)
la	"Resonant Structures and Devices Research," MIT Microphotonics Center
la	Rogister, et al. "Experimental demonstration of suppression of low-frequency fluctuations and stabilization of an external-cavity laser diode," <i>Optics Letters</i> 25(11):808-810 (2000)
la	Schulz, et al. "Advanced fiber grating strain sensor systems for bridges, structures, and highways,"
la	Schulz, et al. "Health monitoring of an adhesive joint using a multi-axis fiber grating strain sensor system"
la	Sutter, et al. "The Shortest KLM Ti:Sapphire Laser Pulse Started by a Semiconductor Saturable Absorber Mirror (SESAM)," <i>IEICE Trans. Electron.</i> E81-C(2):123-124 (1998)
la	"Surface Gratings for Optical Coupling with Microspheres" NASA's Jet Propulsion Laboratory
la	"Systems & Sensors," Bell College of Technology
la	Tabib-Azar, et al. "Fiber-optics MEMS pressure sensors based on evanescent field interaction," <i>SPIE</i> 3276:135-146
la	Tabib-Azar, et al. "MOEM Pressure and Other Physical Sensors Using Photon Tunneling and Optical Evanescent Fields with Exponential Sensitivities and Excellent Stabilities," <i>Conf. on Microelectronic Structures and MEMS for Optical Processing</i> 3513:210-222 (1998)
la	Talvitie, et al. "Improved frequency stability of an external cavity diode laser by eliminating temperature and pressure effects," <i>Applied Optics</i> 35(21):4166-4168 (1996)
la	Technology Transfer, OPLL sensor eases strain monitoring, NASA news, July 2000,

EXAMINER

DATE CONSIDERED

2/11/04

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449 (Modified)

U.S. Department of Commerce  
Patent and Trademark Office

Attorney Docket No.

30203/37899

Serial No.

09/996,143

**INFORMATION DISCLOSURE  
STATEMENT**

Applicant

R. Frick

Filing Date

11/28/01

Group

2877

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)**

		page 30
<i>Ja</i>		Udem, et al. "Accurate measurement of large optical frequency differences with a mode-locked laser," <i>Optics Letters</i> <b>24</b> (13):881-883 (1999)
<i>Ja</i>		Vasil'ev, et al. "A Diode Laser with an External High-Q Microcavity" LEOS Summer Topical Meeting, pages 31-32 (1997)
<i>Ja</i>		Vassilovski, et al. "Carrier Transport Effects in Active and Passive Modelocking of Monolithic Quantum-Well Lasers at Millimeter-Wave Frequencies," <i>Photonics Tech. Letters</i> <b>8</b> (12):1603-1605 (1996)
<i>Ja</i>		Weisbuch, et al., "Advances in Photonic Crystals," <i>Phys. Stat. Sol.</i> <b>221</b> :93-99 (2000)
<i>Ja</i>		Weiss, "Spectrum deftly takes visible light's pulse," <i>Science News</i> <b>157</b> (23):358-359 (2000)
<i>Ja</i>		Xinqi, et al. "A Narrow Line Width Tunable Diode Laser System," <i>Chinese Journal of Lasers</i> , <b>B7</b> (3):217-221 (1998)

EXAMINER

*With a-e-2er*

DATE CONSIDERED

*2/11/04.*

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 30203/37899	Serial No. 09/996,143
<b>INFORMATION DISCLOSURE STATEMENT</b>		Applicant R. Frick	
		Filing Date 11/28/01	Group 2877

**U.S. PATENT DOCUMENTS**

*Examiner Initials	Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
<i>LOE</i>	4,758,087	07/19/88	Hicks, Jr.			
<i>LOE</i>	5,331,658	07/19/94	Shieh et al.			
<i>LOE</i>	5,493,113	02/20/96	Dunphy et al.			
<i>LOE</i>	5,637,865	06/10/97	Bullat et al.			
<i>LOE</i>	5,822,355	10/13/98	Ahn et al.			

**FOREIGN PATENT DOCUMENTS**

*Examiner Initials	Document Number	Publication Date	Country	Class	Subclass	Translation	
						Yes	No
<i>LOE</i>	0 348 039 A2	12/27/89	EPO				
<i>LOE</i>	0 571 107 A1	11/24/93	EPO				
<i>LOE</i>	WO 95/13638	05/18/95	PCT				

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)**

	International Search Report from International Application No. PCT/US01/44399


EXAMINER

*LOE*

DATE CONSIDERED

2/11/04.

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 30203/37899	Serial No. 09/996,143
 <b>INFORMATION DISCLOSURE STATEMENT</b>		Applicant R. Frick	
		Filing Date 11/28/01	Group 2877

### U.S. PATENT DOCUMENTS

*Examiner Initials	Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate

### FOREIGN PATENT DOCUMENTS

*Examiner Initials	Document Number	Publication Date	Country	Class	Subclass	Translation	
						Yes	No

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

<i>ca</i>	United States Patent Application Publication - US 2002/0154860; Published: 10-24-02

EXAMINER

*with CE-207*

DATE CONSIDERED

*2/11/04.*

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.